

RECEIVED
CENTRAL FAX CENTER
FEB 03 2005

EXHIBIT B
ATTACHED TO RESPONSE TO
REQUIREMENT FOR INFORMATION
DATED FEBRUARY 3, 2005
SERIAL NO. 09/614.631

1677-158

08/04/2004

1/5

VORTEXX

ACID LIQUID SANITIZER FOR FOOD PROCESSING EQUIPMENT
in Dairies, Dairy Farms, Breweries, Wineries, Beverage and Food Processing Plants

DISINFECTANT

Hospitals, Nursing Homes, Health Care Facilities, Schools, Colleges, Veterinary Clinics, Animal Life Science Laboratories, Industrial Facilities, Dietary Areas, Office Buildings, Recreational Facilities, Retail and Wholesale Establishments, Animal Care Facilities, Veterinary Facilities, Farms, Livestock Quarters, Poultry Premises, and Poultry Hatcheries

STERILANT FOR ASEPTIC MANUFACTURING AND PACKAGING EQUIPMENT

DISINFECTANT FOR THE PHARMACEUTICAL AND COSMETIC INDUSTRY

Active Ingredients:

Hydrogen Peroxide	6.6%
Peroxyacetic Acid	4.4%
Octanoic Acid	3.3%

Inert Ingredients:	85.4%
Total:	100.0%

ACCEPTED

AUG 04 2004

Under the Federal Insecticide, Fungicide, and
Rodenticide Act as amended, for the
pesticide, registered under
EPA Reg. No. 1677-158

KEEP OUT OF REACH OF CHILDREN
DANGER

PRECAUTIONARY STATEMENTS - HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CORROSIVE: Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through the skin. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Do not breathe vapor or spray mist. Wear protective eyewear (goggles, face shield, or safety glasses), protective clothing and rubber gloves. Wash thoroughly after handling with soap and water, and before eating, drinking or using tobacco. Remove contaminated clothing and wash clothing before reuse. When spraying or fogging, wear a mask or pesticide respirator jointly approved by Mine Safety and Health Administration and the National Institute for Occupational Safety and Health.

FIRST AID

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have a person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not anything by mouth to an unconscious person.

FOR EMERGENCY MEDICAL INFORMATION CALL TOLL FREE: 1-800-328-6026

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

PHYSICAL AND CHEMICAL HAZARDS: Strong oxidizing agent. Corrosive. Do not use in concentrated form. Mix only with water according to label instructions. Never bring concentrate in contact with other sanitizers, cleaners or organic substances.

ENVIRONMENTAL HAZARDS: (containers 5 gal. or greater) Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

VORTEXX label

May 25, 2004 8/5

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

SANITIZATION

VORTEXX is recommended for use on pre-cleaned surfaces such as equipment, pipelines, tanks, vats, filters, evaporators, pasteurizers and aseptic equipment in dairies, dairy farms, breweries, wineries, beverage and food processing plants. This product is effective as a sanitizer when solution is prepared in water of up to 500 ppm hardness as CaCO_3 .

NOTE: FOR MECHANICAL OPERATIONS prepared use solutions may not be reused for sanitizing but may be reused for other purposes such as cleaning.
FOR MANUAL OPERATIONS fresh sanitizing solutions should be prepared at least daily or more often if the solution becomes diluted or soiled.

SANITIZING FOOD CONTACT SURFACES

Prior to sanitizing, remove gross food particles, then wash with a detergent solution, followed by a potable water rinse. Sanitize with a concentration of 1 to 2 ounces VORTEXX per 6 gallons of water (0.13 - 0.26% v/v concentration). At this dilution VORTEXX is effective against *Staphylococcus aureus*, *Escherichia coli*, *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium* (milk isolate), *Pseudomonas aeruginosa*, and *Vibrio cholerae* as well as beverage spoilage organism *Lactobacillus malefermentans*. Use immersion, coarse spray or circulation techniques as appropriate to the equipment. All surfaces should be exposed to the sanitizing solution for a period of not less than one minute unless a longer time is specified by the governing sanitary code. Drain thoroughly. Do not rinse.

SANITIZING EATING, DRINKING, AND FOOD PREP UTENSILS

1. Remove gross food particles by a prescrape, preflush and, when necessary, a presoak treatment.
2. Wash with detergent.
3. Rinse with clean water.
4. Sanitize in a solution of 1 to 2 ounces VORTEXX per 6 gallons of water (0.13 - 0.26% v/v concentration). Immerse all utensils for at least 1 minute or contact time specified by governing sanitary code.
5. Drain and air dry.

ELEVATED TEMPERATURE SANITIZING

At a temperature of 120 F, VORTEXX can be used as a food contact sanitizer at 1 oz. per 14 gallons water (0.055% v/v concentration). At this concentration VORTEXX is effective against *Staphylococcus aureus* and *Escherichia coli*. All surfaces should be exposed to the sanitizing solution for a period of not less than one minute, unless otherwise specified by governing sanitary code. Drain thoroughly. Do not rinse.

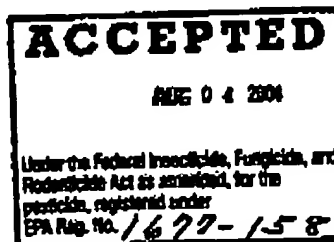
SANITIZING TABLEWARE

For sanitizing tableware in low-temperature (minimum 120 F) warewashing machines, inject VORTEXX into the final rinse water at a concentration of 0.055% v/v (1 oz. per 14 gallons of water) at 120 deg F. Allow 1 minute contact. Air dry.

To insure that the VORTEXX concentration does not fall below 0.055%, periodically test the rinse solution with a suitable test kit and adjust the dispensing rate accordingly. Consult your local Ecotab Specialist for technical assistance and further information on sanitizing tableware in warewashing machines.

FINAL SANITIZING BOTTLE RINSE

VORTEXX may be used as a final sanitizing rinse for returnable and non-returnable bottles (e.g. glass or PET) at a 0.13% dilution (1 oz to 6 gallons). At this dilution VORTEXX is effective against *Staphylococcus aureus*, *Escherichia coli*, *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium*, *Pseudomonas aeruginosa*, *Vibrio cholerae*, and *Lactobacillus malefermentans*. All surfaces should be exposed to the sanitizing solution for a period of not less than 1 minute. Drain thoroughly. No rinse necessary.



VORTEXX label

May 25, 2004

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CONTINUOUS TREATMENT OF CONVEYORS

Wash, rinse and sanitize conveyor equipment. During processing, apply Vortexx at no more than 0.13% - 0.26% v/v (1 to 2 oz. per 8 gallons of water) concentration to conveyor with Mikro Master or other suitable feeding equipment. At this dilution VORTEXX is effective against *Staphylococcus aureus*, *Escherichia coli*, *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium* (milk isolate), *Pseudomonas aeruginosa*, and *Vibrio cholerae*. Controlled volumes of Vortexx are applied to return portion of conveyor through nozzles so located as to permit maximum drainage of Vortexx from equipment and to prevent puddles on top of belt. During interruptions in operations, coarse spray the processing equipment with Vortexx solution at not more than 0.26% v/v concentration. Conveyor equipment must be free of product when applying coarse spray. Conveyor surface should be exposed to the sanitizing solution for a period of not less than 60 seconds.

SANITIZING NON-FOOD CONTACT SURFACES

Preclean surfaces as directed above. Sanitize non-food contact surfaces such as floors, walls, tables, chairs, benches, drains, troughs, drip pans with 1 oz VORTEXX per 8 gal water (0.1% v/v concentration). At this concentration the product is effective against *Staphylococcus aureus*, *Enterobacter aerogenes*, *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium* (milk isolate), *Pseudomonas aeruginosa* in 500 ppm hard water. The product is also effective against beverage spoilage organisms: *Aspergillus niger*, *Saccharomyces cerevisiae*, *Pedococcus damnosus* and *Lactobacillus malefermentans*. All surfaces should be exposed to the sanitizing solution for a period of not less than 5 minutes. Drain thoroughly and allow to air dry. No rinse necessary.

SANITIZING HARD, NON-POROUS OUTSIDE SURFACES OF AIRTIGHT, SEALED PACKAGES CONTAINING FOOD OR NON-FOOD PRODUCTS

VORTEXX may be used as a final sanitizing rinse for hard, non-porous outside surfaces of airtight, sealed packages containing food or non-food products at a 0.13% - 0.26% v/v dilution (1 to 2 oz. per 8 gallons of water). All surfaces should be exposed to the sanitizing solution for a period of not less than 1 minute. Drain thoroughly. No rinse necessary.

FOAM SANITIZING NON-FOOD CONTACT SURFACES

VORTEXX is an effective foam sanitizer of precleaned non-food contact surfaces, such as boots, floors, walls, and drains, and equipment surfaces. For this application, prepare a solution of 0.13% v/v (1 oz. per 8 gallons water) VORTEXX and 0.13% v/v (1 oz. per 8 gallons water) Liquid K. For example, in six gallons of water, add 1 ounce of VORTEXX and 1 ounce of Liquid K. Apply solution as a foam using recommended equipment. Wet surfaces thoroughly. At this concentration, the product is effective against *Staphylococcus aureus*, *Enterobacter aerogenes*, and *Listeria monocytogenes*. Surfaces should be exposed to the sanitizing foam for a period of not less than 5 minutes. No rinse is necessary. Contact your Ecobab representative for information on Liquid K or EcoCare 600 FA foaming agents and a recommended foam generation device.

DIRECTIONS FOR FOGGING

To sanitize hard surfaces as an adjunct to acceptable manual cleaning and disinfecting of room surfaces: Prior to fogging, food products and packaging materials must be removed from the room or carefully protected. Fog desired areas using one quart of a 0.2% to 1.3 % VORTEXX solution (3 oz. to 14 oz. per 8 gallons of water) per 1000 cu. ft. of room volume. Vacate the area of all personnel during fogging and until the hydrogen peroxide air concentration is below 0.5 ppm. Allow surfaces to drain thoroughly before operations are resumed. Solutions above 0.5% may be corrosive and are not to be used on all surfaces. Test solutions on surfaces prior to use. All hard non-porous food contact surfaces treated with the disinfectant and fog must be rinsed thoroughly with a potable water rinse.

SANITIZING NON-FOOD CONTACT PACKAGING EQUIPMENT

Prior to use of this product, remove gross soil particles from surfaces. Wash with a recommended detergent solution, rinse thoroughly with potable water. For sanitization against *Staphylococcus aureus*, *Enterobacter aerogenes*, *Escherichia coli* 0157:H7, *Listeria monocytogenes*, *Salmonella typhimurium* (milk isolate), *Pseudomonas aeruginosa* as well as beverage spoilage organisms, *Aspergillus niger*, *Pedococcus damnosus*, *Lactobacillus malefermentans* and *Saccharomyces cerevisiae*, apply 0.1 - 0.5% (1 to 5 oz. per 8 gallons of water) of VORTEXX to surfaces at a temperature of 25 to 45 deg C and allow to remain wet for at least 5 minutes. Allow surfaces to drain thoroughly before operations are resumed. Drainage may be followed by a potable or sterile water rinse.

ACCEPTED

AUG 04 2004

Under the Federal Insecticide, Fungicide, and
Rodenticide Act as amended, for the
sanitizing, disinfecting and/or

VORTEXX label

May 25, 2004

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SANITIZE PRECLEANED OR NEW RETURNABLE OR NON-RETURNABLE BOTTLED WATER CONTAINERS

To sanitize pre-cleaned or new returnable or non-returnable containers for bottled water, process in VORTEXX at a concentration of 0.75 to 2.2% (9 to 28 oz. per 10 gallons of water) at a temperature of 40 to 60 deg. C for at least 7 seconds. At these conditions, VORTEXX is effective against *Staphylococcus aureus*, *Escherichia coli*, *Salmonella typhi*, *Pediococcus damnosus*, *Lactobacillus malefermentans*, *Saccharomyces cerevisiae* and *Aspergillus niger*. After thorough draining, rinse interior surfaces with a disinfected water rinse free of pathogenic bacteria.

ANTIMICROBIAL TREATMENT OF WATER FILTERS

To reduce the number of beverage spoilage organisms, *Pediococcus damnosus*, *Lactobacillus malefermentans*, *Saccharomyces cerevisiae* and *Aspergillus niger*, apply VORTEXX as a 0.75 to 2.2% (9 to 28 oz. per 10 gallons of water) solution at 25 to 45 deg C for a minimum contact time of 5 minutes. After thorough draining, rinse filters with a disinfected water rinse free of pathogenic bacteria.

ANTIMICROBIAL RINSE OF PRECLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS

To reduce the number of beverage spoilage organisms, *Pediococcus damnosus*, *Lactobacillus malefermentans*, *Saccharomyces cerevisiae* and *Aspergillus niger*, apply VORTEXX at a concentration of 0.75 to 2.2% (9 to 28 oz. per 10 gallons of water) at a temperature of 40 to 60 deg C for at least 7 seconds. After thorough draining, rinse interior container surfaces with a disinfected water rinse free of pathogenic bacteria.

ANTIMICROBIAL RINSE OF PRECLEANED OR NEW RETURNABLE OR NON-RETURNABLE CONTAINERS WITH THE ADDITION OF SURFACTANT

To reduce the number of beverage spoilage organisms, *Pediococcus damnosus*, *Lactobacillus malefermentans*, *Saccharomyces cerevisiae*, and *Aspergillus niger*, apply VORTEXX as follows. Add 5.7 oz. of surfactant product to 10 gallons of prepared VORTEXX solution. Prepare VORTEXX at a concentration of 0.75 to 2.2% (9 to 28 oz. per 10 gallons of water) solution. Use one of the following surfactants, IX-7014, IX-7015, IX-7016, or IX-7017. Apply at a temperature of 40 to 60 deg C with a contact time of at least 7 seconds. After thorough draining, rinse interior container surfaces with a disinfected water rinse free of pathogenic bacteria.

BACTERIOPHAGE CONTROL

When applied to pre-cleaned surfaces, VORTEXX will reduce the incidence of *Lactococcus lactis* subsp. *Lactis*, *Lactococcus lactis* subsp. *Cremoris*, and *Streptococcus thermophilus* bacteriophage in cheese manufacturing establishments by spraying or immersion of equipment at concentrations of 1-2 oz. per 6 gallons (0.13 - 0.26% v/v concentration) of water. All surfaces should be exposed to the solution for a period of not less than one minute. Drain thoroughly. Do not rinse.

DISINFECTION

VORTEXX disinfects as it cleans in one operation. VORTEXX can be used to disinfect floors, walls and other hard, nonporous surfaces such as tables, chairs, countertops, bathroom fixtures, sinks, bed frames, shelves, racks, carts, refrigerators, coolers, tile, linoleum, vinyl, glazed porcelain, plastic (such as polypropylene and polyethylene), stainless steel, or glass.

Areas of Use: In Hospitals, use VORTEXX for Surgical and Obstetrical Suites; Housekeeping Services; Physical Therapy Departments; Nursing Services; Autopsy Facilities. Also, use VORTEXX in nursing homes, other health-care facilities, schools, colleges, veterinary clinics, animal life science laboratories, industrial facilities, dietary areas, office buildings, recreational facilities, retail and wholesale establishments. Not for use on food contact surfaces, medical devices or medical equipment surfaces.

Combination Disinfection and Cleaning

VORTEXX is effective against *Staphylococcus aureus*, *Salmonella choleraesuis*, and *Pseudomonas aeruginosa* at 0.2% - 1.0% (1 oz/4 gallons to 5 oz/4 gallons) in hard water (500 ppm as CaCO₃), 5% blood serum and dried soap film residue on hard nonporous surfaces. For heavily soiled areas a pre-cleaning step is required. Apply solution with mop, cloth, sponge, brush, scrubber, or coarse spray device or by soaking so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes, then remove solution and trapped soil with a clean wet mop, cloth, or wet vacuum pickup. Prepare a fresh solution daily or when it becomes soiled or diluted.

Virucidal

At 0.2% (1 oz/4 gal) VORTEXX is effective against Influenza B, Influenza A(H3N2), Influenza A(H1N1), Influenza A(H10N7) and Rabovirus on hard inanimate surfaces when used at 20 deg C with a 10 minute contact time in the presence of 500 ppm hard water and organic soil. Apply as directed under disinfection.

VORTEXX label

Fungicidal

VORTEXX can be used on hard nonporous inanimate surfaces such as shower room benches, shower stalls and bath mats. At 0.2% (1oz/4g) the product is effective against dermatophytes (Athletes Foot Fungi) and *Candida albicans* (pathogenic yeast) in the presence of 5% blood serum and soap scum in 500 ppm hard water with a 10 minute contact under disinfection.

STERILIZATION OF MANUFACTURING, FILLING, AND PACKAGING EQUIPMENT IN ALL PROCESSES

Prior to use of this product, remove gross soil particles from processing surfaces, then wash with recommended detergent solution, followed by a thorough potable water rinse. Prepare a 5% solution of VORTEXX. Circulate, coarse spray, or flood the sterilizing solution as appropriate to the equipment. All surfaces should be exposed to the sterilizing solution for 30 minutes. This product is effective against *Clostridium sporogenes* and *Bacillus subtilis* at 5% (25 oz/4 g) in 100 ppm hard water and 5% organic load at 20 deg C. Thoroughly rinse food contact surfaces with either a sterile water or potable water rinse. This product is not for use as a sterilant on medical devices.

DISINFECTING PHARMACEUTICAL AND COSMETIC SURFACES

VORTEXX is recommended for use on hard, non-porous, environmental surfaces such as floors, walls and processing equipment in pharmaceutical and cosmetic processing facilities. VORTEXX is effective against *Staphylococcus aureus*, *Salmonella choleraesuis*, and *Pseudomonas aeruginosa* at 0.2% (1 oz/4 g) in hard water (500 ppm as CaCO_3), 5% blood serum and dried soap film residue. For heavily soiled areas a pre-cleaning step is required. Rinse all surfaces thoroughly with the disinfecting solution and maintain a contact time of at least 10 minutes. Product contact surfaces must be rinsed with sterile water.

NOTE: This product in its use solutions is compatible with stainless steel and aluminum surfaces. If product is intended to be used on any other surface, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

STORAGE & DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL

PESTICIDE STORAGE: Product should be kept cool and in a vented container to avoid any explosion hazard.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Totes) Verify that the tote is empty. Do not rinse or clean. Seal tote and contact Ecolab for return.

FOR COMMERCIAL USE ONLY
STRONG OXIDIZING AGENT

EPA Reg. No. 1677-129

EPA Est. 1677-MN-1 (P), 60156-IL-1 (SI), 1677-CA-2(R),
1677-TX-1(D), 1677-OH-1(H), 1677-IL-1(J), 1677-GA-1(M),
1677-PR-1(B), 1677-CA-1(S), 1677-NJ-1(W), 1677-WV-1(V)
Superscript refers to first letter of state code

Ecolab Food and Beverage Division
Ecolab Inc., 370 N. Wabasha Street
St. Paul, MN 55102

U.S. Patent No. 5200169 and 5314687
Other Patents Pending


ACCEPTED

AUG 04 2004

Under the Federal Insecticide, Fungicide, and
Rodenticide Act as amended, for the
pesticide, registered under
EPA Reg. No. 1677-158

Net Contents: 1 U.S. Gal. (3.78 L)
4 U.S. Gals. (15.1 L)
2.5 U.S. Gals. (9.45 L)
15 U.S. Gals. (56.8 L)
30 U.S. Gals. (113.6 L)
60 U.S. Gals. (227.2 L)
300 U.S. Gals. (tote)

Confidential Business Information: Does Not Contain National Security Information (E.O. 12065) Form Approved OMB No. 2070-0080 Approval Expires 11-30-91

		United States Environmental Protection Agency Office of Pesticide Programs (R-307) Washington, DC 20460		Basic Formulation <input checked="" type="checkbox"/> Basic Formulation <input type="checkbox"/> Alternate Formulation		Page 1 of 2		Instructions on Back	
1. Name and Address of Applicant/Registrant (Include ZIP Code) Ecolab Inc. Ecolab Center St. Paul, MN 55102		2. Name and Address of Producer (Include ZIP Code) Ecolab Inc. Ecolab Center St. Paul, MN 55102		3. Product Name KX-6049 (Before Reaction)		4. Registration No./File Symbol 1677-158		5. EPA Product Mgr./Team No. PM31	
6. Country Where Formulated U.S.A.		7. Pounds/Gal or Bulk Density 1.082		8. pH 0.88		9. Flash Point/Flame Extension NA		10. Purpose in Formulation Stabilizer	
11. Supplier Name & Address Monsanto Co., St. Louis, Mo., Albright & Wilson America, Inc., Richmond, VA		12. EPA Reg. No. 15.0 lbs		13. Each Component in Formulation a. Amount 0.90		14. Certified Limits b. By Weight 1.13 0.72		15. Purpose in Formulation Stabilizer	
16. Components in Formulation (List as actually introduced into the formulation. Give commonly accepted chemical name, trade name, and CAS number.) 1-Hydroxyethylidene-1, 1-diphosphonic acid, 60%, CAS 2809-21-4; To give in formulation: 1-Hydroxyethylidene-1, 1-diphosphonic acid 100%		17. Total Weight 35.0 lbs		18. Inhib Principal Scientist		19. Pesticide Use Code 612-451-3660		20. Date	
21. Signature of Approving Official See page 2 of 2		22. Signature of Approving Official Francis L. Richter		23. Signature of Approving Official See page 2 of 2		24. Signature of Approving Official See page 2 of 2		25. Signature of Approving Official See page 2 of 2	

EPA Form 8570-4 (Rev. 12-90) Previous editions are obsolete.

White - EPA File Copy (original)

Yellow - Applicant copy

Form Approved OMB No. 2070-0060 Approval expires 11-30-93

Confidential Business Information: Does Not Contain National Security Information (E.O. 12065)

United States Environmental Protection Agency
Office of Pesticide Programs (75-767)
Washington, DC 20460**EPA**

Confidential Statement of Formula

1. Name and Address of Applicant/Registrant (include ZIP Code)

Ecolab Inc.
Ecolab Center
St. Paul, MN 55102☒ Basic Formulation
☐ Alternate Formulation

2. Name and Address of Producer (include ZIP Code)

Ecolab Inc.
Ecolab Center
St. Paul, MN 55102

Page 2 of 2

Instructions on Back

3. Product Name

KX-6049 (Before Reaction)

4. Registration No./File Symbol

1677-158

5. EPA Product Mgr./Test No.

PN31

6. pH

0.88

8. Country Where Formulated

U.S.A.

9. Flash Point/Fire Hazard

NA

10. Components in Formulation (List as actually incorporated into the formulation. Give commonly accepted chemical names, trade names, and CAS numbers.)

Water, CAS 7732-18-5
For dilution (173.1) and to
make up batch (379.7)

11. Supplier Name & Address

Ecolab Inc., St. Paul,
MN

12. EPA Reg. No.

379.7

13. Each Component as Formulated a. Amount

(552.8)

14. Certified Label b. by Weight c. by Volume d. by Weight e. by Volume

55.3 N/R

N/R Diluent

EPA USE ONLY

16. Typed Name of Approving Official
Francis L. Richter

18. Signature of Approving Official

Francis L. Richter

19. Title

Principal Scientist

20. Total Weight

1000 lbs

21. Date

3-28-97

22. Phone No. (include Area Code)

612-451-5660

23. File Copy (original)

Yellow - Applicant copy

EPA Form 8570-4 (Rev. 12-90) Previous editions are obsolete

Form Approved OMB No. 2070-0080. Approval expires 11-30-81.

Confidential Business Information (E.O. 12065)

EPA
 Confidential Business Information: Does Not Contain National Security Information (E.O. 12065)
 United States Environmental Protection Agency
 Office of Pesticide Programs (105-767)
 Washington, DC 20460

Confidential Statement of Formula

1. Name and Address of Applicant/Registrant (Include ZIP Code)

Ecolab Inc.
 Ecolab Center
 St. Paul, MN 55102

☒ Basic Formulation
☐ Alternative Formulation

Page 1 of 1
 Instructions on Back

2. Name and Address of Product (Include ZIP Code)

Ecolab Inc.
 Ecolab Center
 St. Paul, MN 55102

3. Product Name

KX-6049 (After Reaction)

4. Registration No./File Symbol

1677-158

5. EPA Product Mgr./Trade No.

PM31

6. Country Where Formulated

U.S.A.

7. Pounds/Gal or Bulk Density

1.082

8. pH

0.88

9. Flash Point/Flame Extension

NA

10. Purpose of Formulation

15. Purpose of Formulation

10. Components in Formulation (List as actually introduced into the formulation. Give commonly accepted chemical name, trade name, and CAS number.)

EPA USE ONLY

Deionized Water
CAS 7732-18-151-Hydroxyethylidene-1,1-Diphosphonic acid
CAS 2809-21-4Hydrogen Peroxide
CAS 7722-84-1Acetic Acid
CAS 64-19-7Peroxyacetic Acid
CAS 79-21-0Octanoic Acid
CAS 124-07-2Sodium-1-octane sulfonate
CAS 4324-84-5Peroxyoctanoic Acid
CAS 33734-57-5

11. Supplier Name & Address

Ecolab Inc., St. Paul, MN

Monsanto Co., St. Louis, MO
Albright & Wilson America, Inc., Richmond, VA

Solvay Interco, Houston, TX., Degussa Corp., Ridgelyfield Park, NJ

Air Products and Chemicals, Inc., Allentown, PA
Eastman Chemical Co., Kingsport, TN

Generated In-Situ

Henkel Corp. Emery Group, Ambler, PA
Proctor & Gamble Co., Cincinnati, OH

Ecolab Inc., St. Paul, MN

Generated In-Situ

12. EPA Reg. No.

13. Each Component in Formulation

a. Amount

b. % by Weight

c. % by Volume

d. Other

563.2 lbs

9.0 lbs

69.0 lbs

240.0 lbs

44.0 lbs

33.2 lbs

35.0 lbs

6.6 lbs

56.32

0.9

6.90

24.0

4.4

3.32

3.5

4.2

0.66

N/R

1.1

8.3

26.4

5.3

3.8

2.8

2.8

0.90

N/R

0.7

5.5

21.6

3.5

2.8

2.8

0.2

Diluent

Stabilizer

Active

Anti-microbial

Active

Anti-microbial

Active

Coupler

By-product

18. Typed Name of Approving Official

Francis L. Richter

19. Title

Principal Scientist

18. Signature of Approving Official

Francis L. Richter

Previous editions are obsolete.

20. Phone No. (Include Area Code)

612-451-5660

21. Date

3-28-97

White - EPA File Copy (original)

Yellow - Applicant copy

Material Data Safety Sheet - Product #43832

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923318-09

MATERIAL SAFETY DATA SHEET: USA

MEDICAL EMERGENCIES ONLY (24 Hour Service): 1-800-328-0026

Medical Calls from Outside of the USA: 1-651-222-5352

ECOLAB FOOD & BEVERAGE DIVN.

Ecolab Center St. Paul MN 55102

Product Information: 1-800-392-3392

Issue Date: July 2, 2003

1.0 IDENTIFICATION /

1.1 Product Name: VORTEX (US)

1.2 Product Type: Active Oxygen Sanitizer - EPA No 1677-158

1.3 Hazard Rating: Health: 3 Fire: 0 Reactivity: 1

Substances Subject to SARA 313 Reporting Are Indicated by "#"

2.0 HAZARDOUS COMPONENTS /

(in mg/m3)				
	CAS No.	%	PEL	TWA
2.1 Acetic acid	64-19-7	24	25	25
			*ACGIH STEL = 37	
2.2 Hydrogen peroxide	7722-84-1	6.9	1.4	1.4
2.3 # Peroxyacetic acid	79-21-0	4.4	No	No
2.4 Octanoic acid	124-07-2	3.3	No	No

STEL = ACGIH short term exp. limit (15 min) PEL = OSHA 8 hr ave in air

TWA = ACGIH 8 hr average C = ceiling limit in air, do not exceed

3.0 PHYSICAL DATA /

- 3.1 Appearance: Clear colorless liquid; sharp pungent vinegar odor
- 3.2 Solubility in Water: Mixes with water in all proportions
- 3.3 pH: <1 (at 100%); 2.5 (at 1%)
- 3.4 Initial Boiling Point: > 212 deg F / 100 deg C
- 3.5 Specific Gravity: 1.082 @ 68 deg F / 20 deg C

4.0 FIRE AND EXPLOSION DATA /

- 4.1 Special Fire Hazards: Decomposition of product releases oxygen, which may intensify fire. See Section 5. Strong oxidizing agent.
- 4.2 Fire Fighting Methods: Does not support combustion. Flood fire-exposed containers to cool them.
- 4.3 Flash Point: Product does not flash to 220 deg F / 104 deg C (CC)

5.0 REACTIVITY DATA /

- 5.1 Stability: Heat or contaminants can cause decomposition of product. Store in a cool dry area. Keep from freezing.
- 5.2 Conditions to Avoid: Avoid excessive heat, contact with iron, copper, or any organic materials. Do not mix with chlorinated materials, will cause harmful vapors. Mix only with water per label.

6.0 SPILL OR LEAK PROCEDURES / WEAR PROPER PROTECTIVE EQUIPMENT

- 6.1 Cleanup: Dike or dam large spills. Pump to containers or soak up on inert absorbent. Flush residue or small spills to sanitary sewer.
- 6.2 Waste Disposal: Consult state/local authorities for limits on chemical waste disposal. Unused product is RCRA Corrosive (D002).

7.0 HEALTH HAZARD DATA /

DANGER

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7.1 Effects of Overexposure to Concentrate:

Eyes: Corrosive. Causes irreversible eye damage.
Skin: Corrosive. Causes skin burns. May be fatal if absorbed through the skin.
If Swallowed: May be harmful or fatal if swallowed.
If Inhaled: Inhalation of concentrated vapors will irritate airways.

8.0 FIRST AID /

Call a poison control center or doctor for treatment advice.

- 8.1 Eyes: Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first five minutes, then continue rinsing eye.
- 8.2 Skin: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Wash clothing before reuse.
- 8.3 If Swallowed: Rinse mouth at once. Have person sip a glass of water if able to swallow. DO NOT induce vomiting unless told to do so by the poison control center or doctor. DO NOT give anything by mouth to an unconscious person.
- 8.4 If Inhaled: Immediately move to fresh air.

IMMEDIATELY CALL THE MEDICAL EMERGENCY NUMBER, 1-800-328-0026,
A POISON CONTROL CENTER, OR A PHYSICIAN

9.0 PROTECTIVE MEASURES /

9.1 FOR CONCENTRATE:

Eyes: Wear protective eyewear (goggles, face shield, or safety glasses).

Skin: Wear protective clothing and rubber gloves to prevent skin contact.

Respiratory: Avoid breathing mists or vapors of this product. When spraying or fogging, wear a mask or pesticide respirator jointly approved by Mine Safety and Health Administration and the National Institute for Occupational Safety and Health.

Note: Provide access to emergency eye wash and shower.

10.0 ADDITIONAL INFORMATION /

- 10.1 Purpose of 7/2/2003 issue: Update safety, first aid, and ingredient information. Replaces May 23, 2003 issue.

KEEP OUT OF REACH OF CHILDREN

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.

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